NEWS

Express road entrances to cities, next major highway need, are exemplified in this western approach to St. Louis upon which the state highway department is now putting the finishing touches.

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ENGINEERING NEWS-RECORD

NEWS

Volume 122 MAY 18, 1939 Number 20

NOTEBOOK NEWS

Quick Surveys of Construction Events

▶ Expenditure of nearly two hundred million dollars on flood control has been authorized by the House of Representatives in approving the War Department appropriation bill. The Budget Bureau figure of $100,000,000 for flood control has been boosted to $170,000,000. Also included is $96,000,000 for river and harbor. If the Senate approves, the Army Engineers will have $268,000,000 to spend next year.

▶ Builders at Chicago last week gave critical examination to factors slowing up construction. Put forward as a means for starting more construction was a tentative agreement with labor leaders for a reduction in hourly rates for promise of steady work.

▶ Congress Monopoly Committee hears testimony that idle savings must be invested in construction.

▶ An earth-fill dam 400 ft. high is proposed for flood control on the White River above Tacoma. This is a new record height for earth dams, almost doubling the 220-ft. height of Fort Peck Dam. The dam is to be built in a narrow canyon where the crest length will be only 700 ft.

▶ Contract has been let for construction of a vehicle tunnel under the Mobile River at Mobile, Ala. The tunnel will cut off an 8-mi. loop in the route to coast points east of the city.

▶ The Bureau of Reclamation expects to have about $10,000,000 to spend on irrigation projects in the Great Plains area as a result of the inclusion of half that amount in the Interior Department appropriation bill. Its funds are to be matched with relief funds.

Flood Prevention Week Proclaimed by President

The week beginning May 31 has been proclaimed as National Flood Prevention Week by President Roosevelt. The President urged "the people of the United States to cooperate and aid in the work of flood prevention and to give serious consideration to measures that may prevent disastrous floods and aid in the conservation of our national resources."

WILLIAMS TO HEAD WORK ON FRIANT DAM

ROY B. WILLIAMS, assistant commissioner of the Bureau of Reclamation, has been designated as construction engineer of the Friant division of the Central Valley Project, California, where construction of Friant Dam at Fresno is expected to start soon. Williams' duties in Washington will be taken over by Harry W. Bashore, construction engineer on the nearly completed Kendrick project in Wyoming. Irving J. Matthews becomes acting construction engineer at Kendrick.

House Increases River Fund

$50,000,000 added to budget figure provides 50 per cent increase over current expenditures

Adding $25,000,000 each to the budget estimates for river and harbor work and for flood control, the House, on May 15, passed and sent to the Senate a bill appropriating $305,189,000 for the civil functions of the War Department. This amount, which exceeds the budget by nearly $50,000,000, is more than 50 per cent greater than the corresponding appropriation for 1938–39 of $197,143,000.

As passed, the bill appropriates $96,000,000 for river and harbor improvement and maintenance. This money is not appropriated to definite projects, but is spent on authorized projects in the order of emergency as designated by the President.

For flood control on the Mississippi River, $39,000,000 is appropriated, an increase of $2,000,000 over the budget figures. Tentative allocations made by the Chief of Engineers on the basis of the budget figures included $9,385,000 for the Morganza and Atchafalaya floodways, $4,000,000 for the Yazoo River project, $2,380,000 for the St. Francis River project, and $3,350,000

(Continued on page 6)

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Generators Ordered For Boulder Dam

Two additional generators with a rated capacity of 82,500 kw. each have been ordered for the power plant at Boulder Dam from the Westinghouse Electric & Mfg. Co. Westinghouse offered the low bid of $1,455,000.

The new generators will produce 60 cycle current at 16,500 volts. Six generators of the same type are already in operation at Boulder Dam.

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Highest Earth Dam Planned In West

Four hundred foot rolled-fill flood control structure near Tacoma awaits Army approval

Plans for Mud Mountain Dam, a rolled-earth fill 400 ft. high proposed for the White River above Tacoma, Wash., are now awaiting approval of the Chief of Engineers, U. S. Army. The project arises from a flood-control problem of long standing that alternately has menaced Tacoma's industrial district and the farm lands of another valley to the north as floods have changed the channel to discharge first south through the Puyallup River and then north through the Duwamish. The U. S. Engineer Department took over the problem, prepared specifications and is ready to call for bids on short notice after official approval and allocation of funds.

The dam site is in a narrow canyon about 47 mi. from Seattle and 42 mi. from Tacoma, where a fill with 3:1 slopes can be carried to a height of 400 ft. with a crest length of only 700 ft. Such a fill would be about 2,200 ft. from toe to toe, measured along the river channel. In this length of channel the stream makes a 90-deg. bend.

A glacial till is available for the fill which is to be placed in 6-in., rolled layers, except for the rock facing. Total volume of the fill is to be about 3,000,000 cu. yd. During construction, stream flow is to be diverted through a lined, 23-ft. tunnel.

A spillway is to be located in the right bank where part of the excavated material can be used in the fill.

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Quebec Utilities Body Granted Wide Powers

A provincial transportation and communication board with power to set rates and regulate procedure of all forms of public utilities except electric power has been established by the Quebec legislative assembly. The new board, which will absorb the existing Montreal Tramways and Public Service Commission, will have control of telephone and telegraph service, railway and highway transport, and water works, gas, and sewer systems. No new public utilities may be installed in the province without authorization from the board, and existing owners must obtain such authorization within four months; authorizations may be cancelled by the board at any time.

Decisions of the board may not be appealed except, on points of law, to the Court of King's Bench. The board may cancel or alter any contract or regulation respecting a public service if it is established that the conditions of the contract are abusive.

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1938 Power Generation Dropped Slightly

Production of electric energy for public use in the United States during 1938 totaled 116,681,423,000 kw.hr., 4 per cent less than the 1937 output, the Federal Power Commission reported May 9. From May, 1938, to the end of the year, however, there was a steady upward trend, and the output for December was the largest for any month of record, totaling 10,882,094,000 kw. hr. Of the year's total output, 106,959,-299,000 was produced by privately owned plants and 9,722,124,000 by publicly owned.

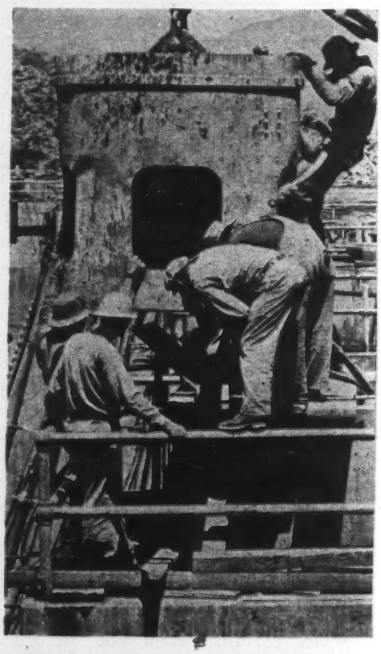
Hydroelectric power represented 38.4 per cent of the total output, as compared with 36.5 per cent during 1937. The report pointed out that there has been little change in the proportion of hydroelectric power for the past 18 years, the percentage having fluctuated between about 34 and about 40 per cent.

The commission's report, entitled "Electric Power Statistics, 1938", is stated to be the most comprehensive ever published by the commission. It includes for the first time the annual amount of electric energy received in or delivered from each state and also includes for the first time data on the output and capacity of all reporting sources by states, type of prime mover, and class of ownership. The report is on sale by the commission at 25 cents.

State Legislation Sought In Dumping Controversy

The current controversy over New York City's landfill method of garbage disposal has led to the introduction in the New York State legislature of a bill which would permit the city to dump refuse in Staten Island without the consent of county officials. The county of Staten Island forms part of the city of New York.

Local opposition to the city's method of refuse disposal has already led to the indictment in Staten Island courts of Commissioner of Sanitation Carey on charges of maintaining a nuisance.



Bureau of Reclamation photo

LAST CONCRETE IN BARTLETT

THE FINAL BUCKET of concrete is placed in the highest multiple arch dam in the world, and the 270-ft. high structure appears as shown.

Built by the Bureau of Reclamation on the Verde River in Arizona, Bartlett Dam will store 200,000 acre-ft. of water for the Salt River project.

City Acts to Exchange Sludge Gas for Power

Excess sludge gas from the sewage treatment works under construction at Waterloo, Ia., is to be turned over to the local public service company under the terms of a three-year contract completed May 1. The gas will be used to reduce the electric bill of the treatment works at a rate of 35.5 cents per million B.t.u.

Estimates based on a survey by Max Levine, Ames, Ia., sanitary consultant, indicate that the total yearly gas production will be 45,000,000 cu.ft. at 623 B.t.u. per cu.ft. About 9,000,000 cu.ft. will be required for heating purposes at the plant, and the balance will be turned over to the power company. The resulting monthly revenue of $663 will be about $60 less than the bill for the estimated 67,000 kw.hr. required for plant operation.

Mayor Ralph B. Slippy, formerly city engineer of Waterloo, negotiated the contract.

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Bridge Competition Jury Chosen

The American Institute of Steel Construction has announced the membership of the jury which will make the eleventh annual award for beautiful bridges completed during 1938. Entries in the competition will close June 1.

Members of the jury are: Arthur L. Harmon and J. Andre Fouilhoux, New York City architects; David L. Snader, Stevens Institute of Technology; Kenneth H. Miller, New York City artist; and F. E. Schmitt, editor of *Engineering News-Record*.

The awards are made in four classes, representing bridges of different costs. Photographs should be submitted with information giving the name of the bridge, its location and cost, the names of the engineer, fabricator, and owner; the date completed; the date opened to traffic; the span length and the roadway width.

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Four Firms Acquitted In Buffalo Sewer Pipe Case

A state supreme court jury at Buffalo on May 6 acquitted five corporations of charges of conspiring to defraud the city of Buffalo in connection with the sale of sewer pipe. The companies concerned were the Great Lakes Concrete Pipe Co., the District Improvement Corp., the Universal Pipe Co., the New York Concrete Pipe Co.

The Albany Gravel Co., accused on similar charges, pleaded guilty.

NEW HIGHWAY ENGINEER NAMED IN KANSAS

R. B. MILLS, engineer of design in the Kansas state highway department, has been promoted to the post of chief engineer, climaxing nineteen years of service during which he was progressively a district engineer, engineer of highway planning and engineer of construction. He succeeds A. B. Nuss, who was appointed chief engineer in June 1937.

Other changes in the engineering personnel include the promotion of Paul Martin from office bridge engineer to engineer of design; of George Lamb from assistant office bridge engineer to office bridge engineer; and of Charles Turnipseed to the post of assistant office bridge engineer after long service in the design division.

Arundel Gets Contract For Mobile Tunnel

The major contract for construction of the Mobile vehicle tunnel has been awarded to the Arundel Corp. of Baltimore on its low bid of $2,154,000.

The Mobile tunnel, 3,441 ft. long including approaches, will join Government St. in the city of Mobile with Route 90 on Blakely Island, eliminating a detour of 8 miles. The tunnel is to be a single tube, placed by the trench method. A length of 2,100 ft., including the 1,100 ft. river crossing and 500 ft. on each shore, will be floated into position, the shore section being floated in wet cofferdams. Approaches will be built by cut and cover in the dry.

The tube section will be a 30-ft. diameter all-welded steel tube lined with 18 in. of reinforced concrete and protected on the exterior by 2 or 3 ft. of tremie concrete.

Chicago Builders Act To Spur Construction

Plan put forward for cutting costs through agreement with labor and with materials dealers

Promotion of building in Chicago on a large scale was undertaken last week through the efforts of the Chicago Building Congress, a six-months old organization embracing all elements of the building industry, including engineers, architects, contractors, manufacturers and equipment dealers. The total construction in the Chicago region last year was only 4 per cent of that of the year 1926, and at the present rate of increase it will take 28 years to again reach the 1926 peak. A backlog of a billion dollars worth of construction is estimated as available while in home building alone less than $40,000,000 was expended for dwelling units in the 10-yr. period ended in 1938. Using these figures as evidence of the low status of building in Chicago, sessions were held every day and evening to study the obstacles to new construction and to outline remedies.

Plan to reduce costs

In one of the early sessions, J. Frank Lindsey, a real estate operator, said that in seeking a remedy, he obtained assurance from three labor leaders that a 25 per cent cut in hourly rates would be acceptable if steady work could be assured. Mr. Lindsey then investigated the possibilities of insurance and found that for a reasonable premium continuity of employment could be assured. He then appealed to the material and equipment interests for a 17 per cent reduction in prices. With these cuts in effect, he indicated, construction of apartments and multiple housing could proceed, since financing is not a problem.

Willard T. Chevalier, vice-president, McGraw-Hill Publishing Co. and publisher of *Business Week*, in a broadcast address to 1,000 people attending a building-industry dinner, stated that in the normal breakdown of the annual construction business one-third is housing, one-third public works and one-third heavy construction and industrial. In a former 80-billion dollar peak business year, 12 billions went for construction.

Franklyn B. Snyder, president-elect of Northwestern University, outlined the program of the new Northwestern Technology Institute for which a gift of $5,000,000 was recently announced.

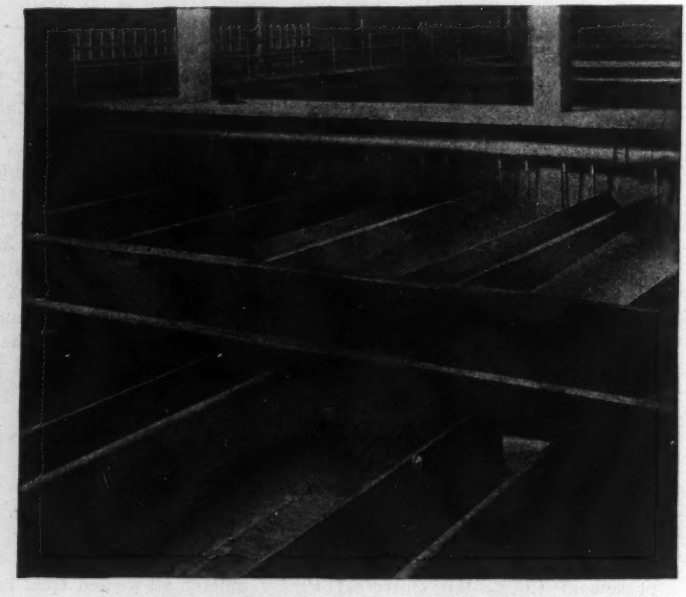
The institute is to give five-year courses in civil, electrical, mechanical and chemical engineering, four years of which are to be cooperative.

AS VIEWED from the Lake Shore Drive the Milwaukee filter plant multi-story chemical house is flanked by a low-lift pump house on the left and a service building on the right. The long roofs in the rear cover the filter. Due to the plant's location in a residential district, care has been taken to make it and its surroundings attractive.

Milwaukee Filter Plant Begins Operation

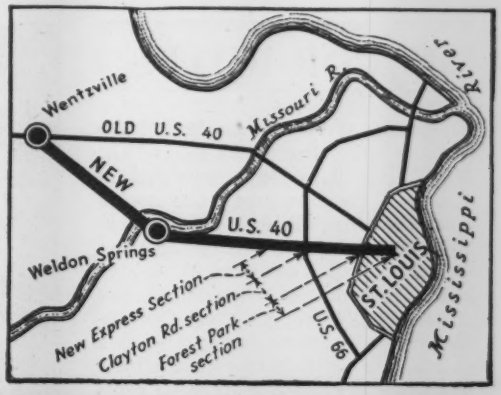
FIRST FILTERED WATER from Milwaukee's new $5,060,000 filtration plant flowed into the city's pipes May 4. The 275-m.g.d. plant is being put into operation gradually. The plant, using rapid sand filters, bypasses lake water from an intake tunnel through the plant thence back into the tunnel leading to the existing North Point Pumping Station. Novel features are the double-deck settling basins, flocculators, wash-over drains at the rear of the filters and top or surface washing of the filter sand.

IN THE DRY CHEMICAL ROOM are steel storage bunkers above weigh hoppers and feeders, with their scales and indicating devices.



INTERIOR of filters, showing surface washing grids above the sand and concrete wash troughs. In these filters, sand-washing takes place at the surface.

New Express Road Entrance to St. Louis

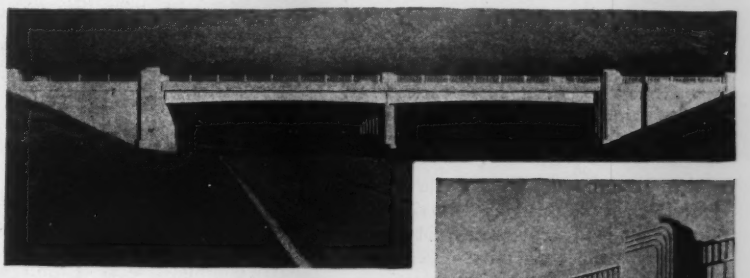


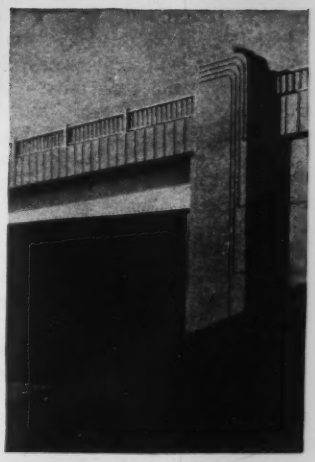
MISSOURI is putting finishing touches on its new express road entrance to St. Louis—a new location for U. S. 40, connecting with Clayton Road at Belt Route 66, Clayton Road being the connecting link with the Oakland Express Highway through Forest Park, opened to traffic in 1936.

The new road starts at route 66, runs 15 miles to the new Weldon Springs continuous truss bridge over the Missouri River and then 14 miles to Wentzville where it joins existing U. S. 40, which comes in north of St. Louis.

For the first 5 miles this new U. S. 40 route is a divided lane road with grade-separated crossings. As it gets farther from the city it becomes progressively a single 40-ft. then a 30-ft. and finally a 22-ft. pavement. The accompanying pictures show some of the construction in the new 5-mile divided-lane section where two 24-ft. roadways are separated by a 56-ft. strip. Since future widening of the roadways will be done in the dividing strip, outside curbs, shoulders and slope planting can be put in in permanent form.

In the Clayton Road section, which is 3 miles long, the existing 6-lane pavement will be used for the first mile west of the city limits. For the next two miles to Belt Route 66 a new location is planned for a divided lane road of the same type as is now being completed west of route 66. Seven grade separations will be required in this expensive 2-mile section for which the land alone will cost about $300,000.





BRIDGES over the express road are two-span continuous girder type, each span being 60 ft. Seven lines of girders support the 44-ft. roadways. Simple architectural treatment of abutment concrete combines pleasingly with steel girders and aluminum handrails, as shown in view at right.

Missouri State Highway Department Photo

EXPRESS ROAD consists of two 24-ft. lanes separated by a 56-ft. strip. Ultimate development, with 12-ft. pavement widening on each lane, will cut dividing strip to 32 ft. At bridges ultimate lane width of 36 ft. is paved. Over-crossings, such as illustrated, consist of separate bridges for each lane.

LABOR NOTES

LABORERS at Waterloo, Iowa, who went on strike two weeks ago (*ENR*, May 11, 1939, p. 46), succeeded in obtaining the five cent raise to 65 cents an hour which they were seeking, and the cement finishers obtained their 12½ cent increase to $1.12½ an hour. The increases, however, are not effective until Jan. 1, 1940. Contractors' truck drivers won recognition as a unit of the building trades, and their pay scale will rise 5 cents to 65 cents an hour at the first of the year.

LABORERS at Madison, Wis., also went back to work last week when they obtained a 70 cent scale as a result of a five-day strike.

AT LEXINGTON, KY., a three day building trades strike obtained a closed shop on construction of a new building at the University of Kentucky on which Gilson-Taylor, Inc., are contractors. The union agreed to accept into the union the unorganized workmen on the job whose employment had led to the strike.

CARPENTERS at Vallejo, Calif., went back to work after a five day strike early this month when a compromise agreement was reached on a $9.50 scale for an 8-hour day. The carpenters, who had been receiving $9 for an 8-hour day, had sought a 7-hour day at the same pay. Still on strike are plumbers who are asking that their $11 8-hour day be reduced to a 7-hour day without change in pay.

EMPLOYMENT of CIO workers on a small construction job of the Utah Oil Refining Co. of Salt Lake City has resulted in picketing of the project by the Salt Lake Building and Construction Trades Council, AFL.

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House Increases River Fund

(*Continued from p. 1*)

for Wax Lake Outlet and Charenton Canal.

For flood control projects other than the Mississippi, $133,000,000 is appropriated, as compared with a budget figure of $110,000,000. Expenditure of this sum, also, is subject to the discretion of the President.

Because of the increase in the appropriation, it is impossible to tell on just what projects this money will be spent. A list of projects, drawn up by the Chief of Engineers, on which he planned to spend the budgeted amount included the following larger projects:

Whitney Point Reservoir, N. Y.	$3,838,000
Franklin Falls Reservoir, Merrimac River Basin, N. H.	7,883,000
River Hill Reservation, Merrimac River Basin, N. H.	8,983,000
Kingston-Edwardsville, Susquehanna River, Pa.	4,084,000
Wilkesbarre and Hanover Township, Pa.	5,173,000
Memphis, Wolf River and Noconnah Creek, Tenn.	9,000,000
Fort Supply Reservoir, Okla.	5,392,000
Caddoa Reservoir, Colo.	14,600,000
Denison Reservoir, Red River, Texas and Okla.	54,000,000
Norfolk Reservoir, White River Basin, Ark.	11,327,000
Blue Mt. Reservoir, Arkansas River, Okla.	5,900,000
Kansas City, Kansas and Missouri Rivers, Kansas and Mo.	10,000,000
Tionesta Creek Reservoir, Pa.	5,900,000
Johnstown, Pa.	7,610,000
Mahoning Creek Reservoir, Pa.	6,500,000
Bluestone Reservoir, W. Va.	14,857,000
Conemaugh River Reservoir, Pa.	14,750,000
Cincinnati, Ohio	9,717,000
Dillon Reservoir, Ohio River Basin	6,848,000
New Albany, Indiana	9,900,000
Shoals Reservoir, Ohio River Basin, Ky.	11,748,000
Essamipe Creek Reservoir, Ohio River Basin, Ky.	10,818,000
Hansen Retarding Basin	7,900,000
Los Angeles River Channel	29,000,000
Santa Ana River Basin, Calif.	19,500,000

In addition, $2,000,000 is appropriated to continue construction of a hydro-electric plant at Fort Peck Dam, Montana. The power plant at Bonneville is also continued by an appropriation of $7,000,000.

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Former Road Commissioner Convicted in Minnesota

N. W. Elsberg, former state highway commissioner of Minnesota, has been found guilty of conspiracy in connection with a $71,000 false claim against the highway department for which S. J. Reader, Minneapolis contractor, and Loren L. Allen, former highway maintenance engineer, were previously convicted (*ENR*, May 4, 1939, p. 6).

Elsberg and Allen were each sentenced to two to five years in jail, and Reader received a similar jail sentence plus a $5,000 fine. The defendants have indicated that they will appeal the case.

J. T. Flanagan and William F. Fitzgerald, highway department employees originally indicted along with the others, were dismissed on the ground that they were subordinates.

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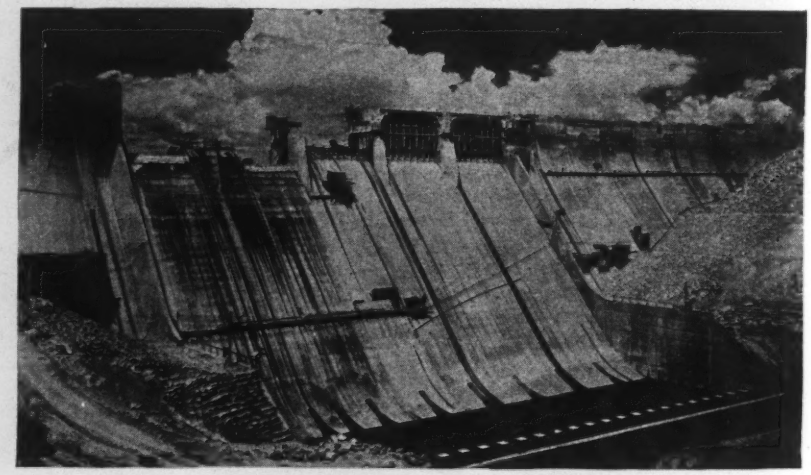
Landowner Held Entitled To Use Groundwater

A landowner in Connecticut is entirely within his rights in sinking wells on his own land and drawing off percolating water, even though his action may reduce the water supply of a user downstream. Judge Alfred C. Baldwin of Connecticut so held in refusing to enjoin the Cromwell Water Co. from taking percolating water from the watershed of Dividend Brook.

When the water company recently bought seven acres of land and proposed to sink a well, the Hartford Rayon Corp. sought an injunction, asserting that its plant, a mile east, needed and was using the full flow of Dividend Brook and that the flow would be cut down by the proposed well.



CONCHAS DAM NEARS COMPLETION

WITH ABOUT 749,000 cu.yd. of concrete, out of a total of 756,000 cu.yd., in place when this picture was taken last week, Conchas Dam, on the South Canadian River in New Mexico, is nearly complete. Most of the remaining concrete is going into the bridge arches spanning the spillway section and into road slabs and railings. Final completion is scheduled for August.

The dam is being built for the U. S. Engineers by Bent Bros., Inc. and Griffith Co. of Los Angeles at a site about 180 miles east of Sante Fe.

WASHINGTON HIGHLIGHTS

Special reports by Paul Wooton

BUREAU OF RECLAMATION officials expect that the $5,000,000 allocated in the Department of the Interior appropriation bill (*ENR*, May 11, 1939, p. 43) for drought relief in the Great Plains area will be supplemented by an equal amount from relief funds. The money provided in the Department of the Interior bill will be repaid by water users over a period of 40 years. Projects on which investigations have already been started for this work include the Buford Trenton project in North Dakota, the second unit of the Buffalo Rapids project in Montana, and the Rapid Valley project in South Dakota. Money was allocated from relief funds for the same purpose last year, but a limitation that not more than $50,000 be spent on any one project prevented any work from being carried out. It will now be possible to extend this work in seventeen states included in the so-called dust bowl area.

PRESIDENT ROOSEVELT'S action in supporting the objectives of railroad legislation proposed by Sen. Wheeler and Rep. Lea has increased the prospects for the so-called omnibus bill which carries a certain amount of relief for the carriers. The outlook is not so favorable for the proposed railroad reorganization court.

Reclamation Pioneer Dies at Eighty-Nine

John H. Quinton, senior partner in the Los Angeles firm of Quinton, Code & Hill, died May 10 in Los Angeles at the age of 89. Quinton had long been active in water supply work on the Pacific Coast, having had an important part in the Owens River Aqueduct of Los Angeles, the San Gabriel Canyon power development, the Santa Ana River irrigation system, and many other reclamation projects.

Quinton was born in Ireland and educated at Queens University in Dublin. He came to this country in 1873, a year after graduation.

Wurpel

HOW TO GET RID OF THE SUNDAY NEWSPAPER

IMPROVED INSULATION is obtained, the New York Steam Co. has found, by stuffing old crumpled newspapers into the hollow tiles with which the company surrounds its underground steam pipes running under New York streets.

The steam company has a network of underground pipes from which it furnishes steam to a large number of buildings in New York City.

OBITUARY

B. DUNCAN MCCLAVE, a member of the New York City and Cliffside Park, N. J., engineering firm of McClave & McClave, died in Englewood, N. J., May 8 at the age of 50. McClave was a graduate in civil engineering of Princeton University.

LEWIS K. DAVIS, an engineer for the Standard Water System Co. of Hampton, N. J., and formerly superintendent of construction of the Indianapolis water works and superintendent of the Washington water works, died in Hampton May 11 at the age of 69.

JOHN T. MOCKLER, who retired eighteen months ago as acting city engineer of Buffalo, N. Y., died there May 7, aged 51. Mockler had been in the city service since 1917 with the exception of two years in war service as a lieutenant in the Engineer Corps. Earlier he spent several years in the New York state highway department and the New York state engineer department.

LEWIS A. AMSDEN, former city engineer of Ashtabula, Ohio, died there Apr. 27. Amsden was connected with the city engineer department for 29 years and was city engineer from 1905 to 1922.

WILLIAM H. JACKSON, president of the Pittsburgh-Des Moines Steel Co., died in Pittsburgh Apr. 26 at the age of 71. A civil engineering graduate in 1891 of Iowa State College, Jackson formed a partnership with B. N. Moss in 1893 to build waterworks systems. Seven years later the firm was reorganized as the Des Moines Bridge & Iron Works and in 1916 the firm became the Pittsburgh-Des Moines Co. Jackson had been president of the Pittsburgh-Des Moines Co. since 1921.

WILLIAM D. JOHNSON of the Hartford architectural firm of Curtis & Johnson, died there May 10 at the age of 76. Johnson graduated from Yale University Sheffield Scientific School in 1886 and spent ten years as a civil engineer with the New York, New Haven & Hartford R.R.

WILLIAM H. PRETTY, 74, a civil engineer connected for many years with the staff of the Trent Canal at Peterboro, Ont., died there recently.

W. F. BEARD, engineer at Ames for the Iowa state highway department, died there May 8 at the age of 67. Beard was a graduate of the University of Iowa and had been with the state highway department for 25 years, of which 21 had been spent at Ames.

"Army dam builders look at the TVA" might be the title of this picture, for **Capt. James H. Stratton** (left) in charge of the Red River Dam at Denison, Tex., and **Capt. Hans Kramer** in charge of Conchas Dam in New Mexico are shown at TVA's Chickamauga Dam. Denison, to be an earth dam, is in the preliminary investigation stage, while Conchas, a concrete gravity structure, is near completion.

Leon Small, engineer in charge of the Baltimore bureau of water supply has good reason to work in shirt sleeves these days while he directs the construction of a 6-mi. tunnel and devises a new scheme for automatic control of pumping stations. He has developed controls to the point where unoccupied pumping stations actually "talk back" when he rings them on the telephone for operating information.

The land fill moves into the laboratory at New York University, where **Lloyd Setter,** assistant professor of sanitary engineering is getting organized on a study of refuse decomposition. The study is financed by WPA, and will employ about 100 investigators. Setter, who has made fundamental studies on stream pollution, is now probing into the bacterial life on land fills in New York City.

MEN AT WORK

Ignoring a Cascade Mountain downpour, **C. W. (Smoky) Wood,** superintendent for General-Shea-Columbia Const. Co. at Ruby Dam on the Skagit River in Washington, watches his riggers tie in a new track cable to the head tower of his highline cableway. The old cable was wrecked when a U-bolt at the headtower gave way under the load of a 2-yd. shovel—result, 20 tons of scrap iron at the bottom of a 175-ft. drop.

Jay E. Henry, who was made acting city engineer of Wheeling, W. Va. on April 1. Formerly an engineer with the Wisconsin State Highway Department, Henry went to Wheeling about a year ago as assistant to city engineer Walter C. Smith and moved up when Smith was appointed to the post of city manager. A big job faces both of these administrators in rehabilitation of municipal services at Wheeling, hard hit by depression and floods.

David L. Erickson, director, Department Parks, Public Property and Improvement, Lincoln, Neb., and formerly city engineer, takes out time to show an *ENR* editor over his city streets, many of which were paved 50 years ago with brick and which recently have been covered with asphalt. Street car tracks are removed first, as motor buses have replaced most of the former street car lines in Nebraska's capital city.

ENR Staff Photo

MEN AND JOBS

WILL D. MERRITT has resigned his post as city engineer of Mt. Airy, N. C., to do graduate work at the University of North Carolina.

F. G. DOGGETT, assistant superintendent of the filter plant at Mt. Airy, has been made city engineer there. Doggett is a graduate of the University of North Carolina.

WILLIS WALKER, resident engineer for the South Dakota highway department at Huron, has been promoted to district engineer there.

ROBERT W. OWENS has been promoted from the rank of resident engineer for the South Dakota highway department at Aberdeen to the rank of district engineer.

JOHN R. ELLIS has resigned his post as engineer in charge of the irrigation and drainage division of the Wyoming Farm Loan Board to join the division of irrigation levees and drainage of the Reconstruction Finance Corporation, with headquarters at Bonners Ferry, Idaho.

RAY CROZIER has resigned his post as manager of the Peoria, Ill., waterworks. Crozier has been at Peoria for 29 years and was made manager 25 years ago.

C. M. ROOS has been appointed manager of the Peoria waterworks. Roos was for 16 years manager of the Cairo waterworks.

E. W. GOOCH has been appointed city engineer of Bellingham, Wash.; he has been acting city engineer for the past six months. Gooch, a graduate of the University of Washington, has been in the Bellingham city engineer's office for 20 years.

P. T. WILTSIE has been appointed maintenance engineer of Whatcom County, Wash. He was formerly connected with the county engineer's office of King County.

JOHN G. TURNEY, engineer for the Texas state railroad commission, has been appointed first assistant city engineer of Houston.

W. D. FREER has been elected president of the Birmingham Waterworks Co.

A. L. RIEMER has been elected president and treasurer of the Wisconsin Bridge & Iron Co. of Milwaukee to succeed H. A. Wagner, who is retiring but continues as a member of the board of directors.

LEONARD J. CURRAN has been appointed assistant district engineer, junior grade, for the Pennsylvania highway department.

RICHARD K. HUTCHISON has been named district construction engineer at Sunbury in the Pennsylvania highway department.

D. E. JAMES has been made district office engineer at Williamsport for the Pennsylvania highway department.

JOHN S. SCHMITT, county highway engineer of Kittson County, Minn., has been appointed engineer of Stearns County.

MAX C. BARTLETT, for fifteen years associate engineer with Burns & McDonnell Engineering Co. of Kansas City, has been appointed general manager of the water and lighting department of the municipal utilities at Knoxville, Tenn.

WILLIAM KENDRICK HATT is now Emeritus Professor of Civil Engineering at Purdue University and will be in residence at the University, Lafayette, Ind., having completed a three months' tour of the Far East.

D. W. MOULTON has been appointed district director of WPA in Tennessee to succeed J. W. Gentrey, recently appointed chief engineer of the highway department. Moulton had been with the highway department for 20 years.

J. T. HALLETT, K. B. Wolfskill, B. B. Straight, T. Roesch, C. C. Tabor, U. M. Ralston, and J. S. Lambright have recently left the engineering staff of the Indiana state highway commission. Hallett has become research engineer at Binghamton, N. Y., for the Portland Cement Association. Wolfskill has been made resident engineer inspector at New Albany, Ind., for PWA. Straight has joined the staff of J. H. Wildermuch, Gary architect. Roesch has joined the engineering department of Montgomery-Ward in Chicago. Tabor and Ralston have joined the Indiana WPA staff, and Lambright has transferred to the state conservation department.

G. H. HENDERSON has returned to his former position as chief of the division of roads and bridges of the Rhode Island highway department.

MEETINGS

AMERICAN ROAD BUILDERS ASSOCIATION, annual business meeting, Willard Hotel, Washington, May 24-25.

NATIONAL CONFERENCE ON STATE PARKS, annual meeting Itasca State Park, Minn., June 5-7.

AMERICAN WATER WORKS ASSOCIATION, annual convention, Atlantic City Auditorium and Convention Hall, Atlantic City, N. J., June 11–15.

WATERWORKS MANUFACTURERS ASSOCIATION, annual meeting, auditorium, Atlantic City, N. J., June 13.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION, annual meeting, Pennsylvania State College, State College, Pa., June 19-23.

AMERICAN SOCIETY FOR TESTING MATERIALS, annual meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 26-30.

NATIONAL COUNTY OFFICERS ASSOCIATION, annual convention, Ogden, Utah, July 17–19.

AMERICAN SOCIETY OF CIVIL ENGINEERS, annual convention, San Francisco, July 26-28.

REGIONAL AND LOCAL

PROFESSIONAL ENGINEERS—POST NO. 495, American Legion, spring meeting, Los Angeles, May 20.

NEW YORK STATE SOCIETY OF PROFESSIONAL ENGINEERS, annual convention, Hotel Commodore, New York, May 26-27.

PENNSYLVANIA SEWAGE WORKS ASSOCIATION, annual conference, Home Economics Building, State College, June 26–28.

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License Examinations

LOUISIANA: Personal appearance before the State Board of Engineering Examiners of applicants for registration as civil engineers and surveyors, May 24; written examination, May 25-26.

IOWA: Examinations for professional engineering, June 13–14; for land surveying, June 15; at the State House, Des Moines.

Economist Urges More Construction

Hansen tells Congress committee that savings must be directed into new construction

Idle savings must be used for expansion and new construction if the nation is to avoid chronic unemployment, Alvin H. Hansen, professor of political economy at Harvard, told the Congressional monopoly committee on Tuesday. Prof. Hansen was one of the economists and financial experts called by the committee in its study of investment and taxation.

Prof. Hansen stressed the need for continued public construction and expansion of private industry and stated that, if necessary, private savings should be turned directly into such work through taxation instead of waiting for them to go in voluntarily through borrowing. Taxes, he said, must be so applied as to fall on savings and not on consumption.

Prof. Hansen would have the government use such funds for loans to the railroads for new equipment and to other industries for the development of new products or entirely new industries.

Prof. Hansen suggested excluding self-liquidating public projects from the budget, but cautioned against too much emphasis on self-liquidating projects, as he said there were many needed undertakings that did not fall in that class.

BRIEF NEWS

FISHWAYS must be installed on all dams in Iowa unless specifically exempted by the conservation director, under the terms of a bill recently signed by Governor Wilson.

CREATION of a department of city planning in Baltimore has been approved by popular vote. As a result, the city charter will be amended to authorize such a department to carry out a long range program of city development.

CONTRACTORS on Michigan highway work will be able to use their equipment twice as long daily under a new regulation of the state highway commissioner by which inspection will be furnished for 16 hours daily instead of 8 hours as at present.

THE SIMPLIFIED PRACTICE recommendation on vitrified paving brick has been reaffirmed, the National Bureau of Standards has announced. A survey indicated that the four varieties now recognized continue to meet the needs. Since 1921 a 94 per cent reduction has been effected in the variety and sizes of vitrified paving brick.

A LEVEE on Tulare Lake near Corcoran, Calif. has been seriously weakened by carp digging it away with their tails. At one point the levee was cut down from 16 ft. in width to 5 ft. in four days. The levee is being strengthened with sand bags and wire fencing.

ASPHALT PAVING specifications in Buffalo, N. Y. will be drawn in future so that bids may be submitted on pure petroleum, pure Trinidad, or an equal mixture of the two, the city council has decided. Previously only pure Trinidad was permitted.

THE DECIMAL POINT slipped in our issue of Apr. 13, and the pumps at Grand Coulee Dam were described as having a capacity of 16,000 sec.-ft. each. The capacity should have been given as 1,600 sec.-ft.

CONTRACTS AND CAPITAL

ENGINEERING construction awards for the week total $56,013,000 a 7 per cent gain over last week, and 23 per cent above the volume for the corresponding 1938 week. This is the ninth time in the last ten weeks that 1939 awards have exceeded their respective values of a year ago.

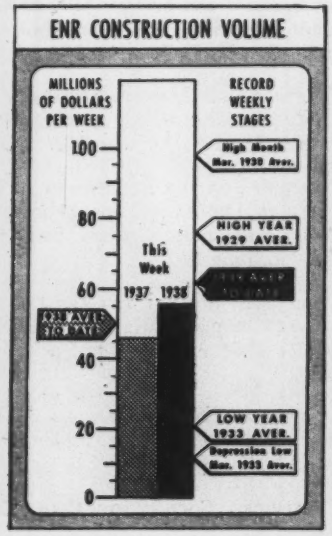
Construction awards for the year to date total $1,223,507,000, a 22.5 per cent gain over the $999,015,000 for the initial 20-week period in 1938.

Private awards for the week are 18 per cent higher than in the preceding week, but 5 per cent below the week last year. Public construction tops a week ago by 3 per cent, and a year ago by 40 per cent.

In the classified construction groups, gains over last week are in waterworks, bridges, commercial building and large-scale housing, public buildings, and unclassified construction. Increases over the corresponding 1938 week are reported in waterworks, sewerage, bridges, public buildings, and unclassified.

New capital for construction purposes for the week totals $18,501,000, a decrease of 4 per cent from the volume for the week last year. The week's financing is made up of $16,988,000 in state and municipal bonds, and $1,513,000 in REA loans.

New construction financing for 20 weeks of 1939, $813,831,000, is 45 per cent higher than the $559,050,000 reported for the corresponding period last year.



CONTRACTS

(Thousands of dollars)

	Week Ending May 19 1938	May 11 1939	May 18 1939
Federal	$1,421	$5,854	$3,412
State & Municipal	26,820	32,548	36,090
Total public	$28,241	$38,402	$39,502
Total private	17,373	13,988	16,511
TOTALS	$45,614	$52,390	$56,013
Cumulative 1939 (20 weeks)			$1,223,507
Cumulative 1938 (20 weeks)			$999,015

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1938 20 Wk.	1939 20 Wk.
NON-FEDERAL	$472,518	$502,404
Corporate securities	119,600	114,170
State & Mun. bonds	233,976	272,141
R.E.A. loans	.....	27,147
R.F.C. loans	63,420	234
P.W.A. allotments	2,029	.....
U.S.H.A. loans	53,493	88,712
FEDERAL	$86,532	$311,427
TOTAL CAPITAL	$559,050	$813,831

FHA MORTGAGES

	Week Ending May 14 1938	May 6 1939	May 13 1939
Selected for appraisal	$22,963	$24,815	$25,800*
Cumulative 1939 (19 weeks)			$439,141*
Cumulative 1938 (20 weeks)			$313,011

*Subject to revision.

ENR INDEX NUMBERS

Index Base		1913	1926
Construction Cost	May	234.69	112.82
Building Cost	May	196.60	106.28
Volume	Apr.	221	97